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STUDIES ON THE SOUTH AFRICAN BULBOUS LILIACEAE: 4. A NEW SPECIES OF *LEDEBOURIA* FROM SOUTH WEST AFRICA

J. P. Jessop

(*Schonland Botanical Laboratory, Rhodes University*)

Abstract

A new species is described from the Gobabis district of South West Africa. The diploid chromosome number is 40.

Uittreksel

STUDIES VAN DIE BOLDRAENDE LILIACEAE IN SUID-AFRIKA: 4. 'N NUWE SOORT *LEDEBOURIA* VANAF SUIDWES-AFRIKA

'n Nuwe soort *Ledebouria* is uit die Gobabis distrik van Suidwes-Afrika beskryf. Die diploïede chromosoom getal is 40.

Only three species of *Ledebouria* were recognised from South West Africa by Jessop (1970). These are *L. cooperi*, *L. revoluta* and *L. undulata*. In 1970, living material of a fourth species was collected by Mr. H. R. Tölken in the Gobabis district. This material flowered in Grahamstown in summer 1971/2.

Ledebouria scabrida Jess., sp. nov., *L. revolutae* (L.f.) Jess. affinis, sed foliis scabridis et bulbo in collum sursum producto.

Bulbi 30–40 mm longi, 35–40 mm lati, in collum sursum producti, cinerei vel brunnei. Folia lanceolata, 80–170 mm longa, 20–30 mm lata, patentes vel erecto-patentes, rosulata, scabrida sursum, ubi lacerata fila plurima non exhibentes. Pedunculi solitarii, c.100 mm longi, floribus 25–30. Bracteae binatae, infima 1–1,5 mm longa. Pedicellii patentes vel erecto-patentes, 5–7 mm longi. Perianthii segmenta pallida, vitta dorsali roseo-brunneo, ad apicem tumidi, c.5 mm longi, sub medio reflexi. Filamenta rosea, adnata, c.4 mm longa. Antherae roseae. Ovaria viridia, 1,5 mm longa. Styli albi, 2,5 mm longi.

Type: South West Africa; Epukiro (2119), Sturmveld, *Tölken* s.n., December 1970 (GRA, holo.) (Fig. 1).

Bulbs 30–40 mm long, 35–40 mm broad, produced apically into a slightly fleshy neck c.25–35 mm long. Outer scales membranous, grey to brown, not marked with red or purple. *Leaves:* 3 or 4, lanceolate, 80–170 mm long, 20–30 mm broad, spreading to erect-spreading, rosulate (not distichous), marked with

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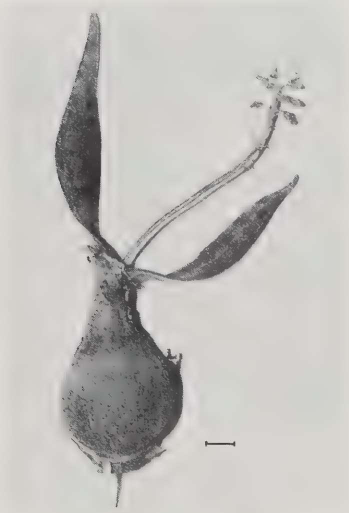

Fig. 1.
Holotype of *Ledebouria scabrida* sp. nov. (*Tölken* s.n.) Scale is 10 mm.

darker green patches or groups of dots on the upper surface, not producing threads when torn. Upper surface scabrid. Lower surface smooth. Margin ciliate. *Peduncle* solitary, c.100 mm long, with 25–30 flowers. *Bracts* paired, the lower 1–1,5 mm long. *Pedicels* spreading to erect-spreading, 5–7 mm long. *Perianth segments* pale, with a light pinkish brown dorsal stripe, swollen at the apex, c.5 mm long, reflexed just below the middel. *Filaments* pink, adnate to the perianth segments, c.4 mm long. *Anthers* pink. *Ovary* green, 1,5 mm long. *Style* white, 2,5 mm long.

Occurs on the margin of calcareous depressions, with *Acacia mellifera* subsp. *detinens*. Flowers during summer.

Diploid chromosome number (based on three cells) is 40.

Although there is only one other specimen known of this species, it is possible that *Drimiopsis papillosa* Dint. (Fedde. Repert. 17: 189; 1921) is synonymous. Dinter cited his material as "H.: Etemba, in Massen in der grossen Kalkpfanne, Dtr. 3298; Eahero, Dtr.". This material has not been located. The leaves are described as being covered on the upper surface by large "glitzernden" papillae. He also remarked:—"Möglicherweise handelt es sich aber auch hier nur um eine neue *Scilla*.". There is no indication in the description that the material included flowers, which would have been necessary for a generic identification.

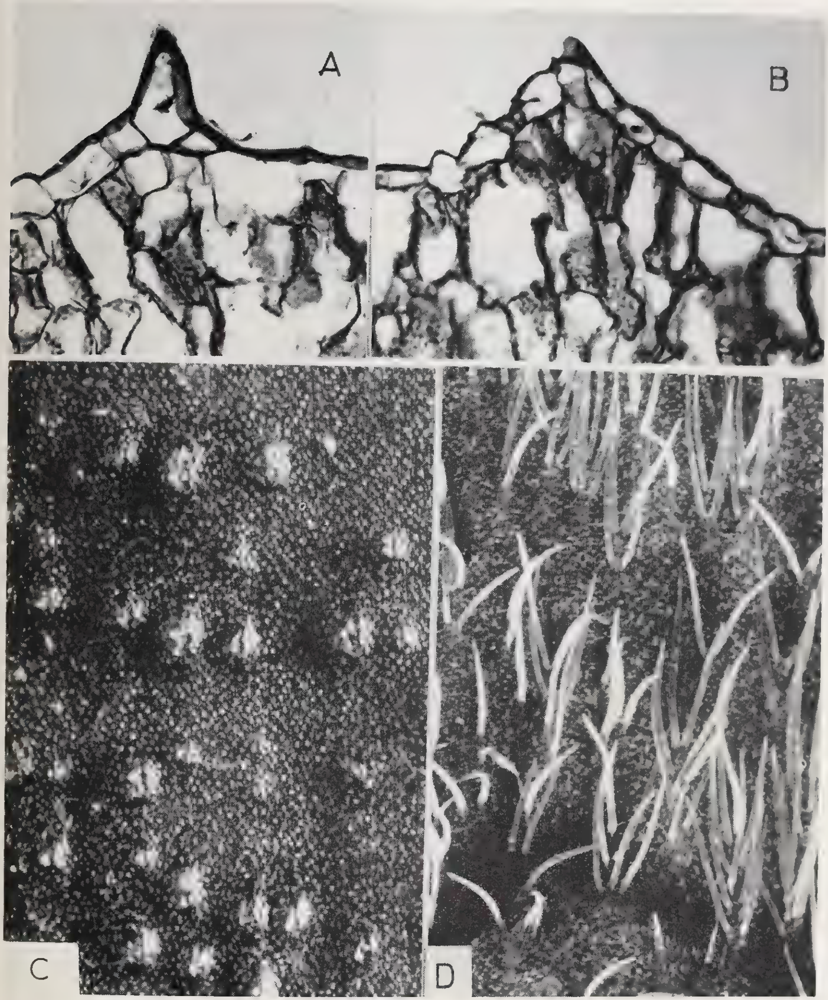

FIG. 2.

A. & B. Transverse sections through leaf of *L. scabrida* to show projections, X90. C. Surface view of leaf of *L. scabrida*, X20. D. Surface view of leaf of *L. hypoxidioides*, X20.

The protuberances, giving the plant its scabrid character, are of interest as only one species of *Ledebouria* possesses more distinct trichomes—namely *L. hypoxidioides*. However, in *L. hypoxidioides*, which is known only from the Albany district of the Cape Province, they take the form of distinct somewhat silky hairs (Fig. 2).

In the key to the genus already published (Jessop, 1970:245) this new species would key out under lead '5' when it may be recognised by being distinctly scabrid on the ventral surface.

Specimens:

S.W.A.—2119 (Epukiro): Farm Sturmveld, *Tölken* s.n. (GRA); 2219 (Gobabis)?—"Gobabis", *Wernsdorff* 1 (M).